



# ENERGY POLICY UPDATE

January 6, 2015

The Energy Policy Update Electronic Newsletter is published by the Arizona Governor's Office Of Energy Policy and is provided free of charge to the public. It contains verbatim excerpts from international, domestic energy, and environment-related publications that are reviewed by Community Outreach Personnel. For inquiries, call 602-771-1143 or toll free to 800-352-5499. To register to receive this newsletter electronically or to unsubscribe, email [Gloria Castro](mailto:Gloria.Castro@az.gov).

## UPCOMING WEBINARS

✚ ENERGY STAR Webinars

✚ U.S. Dept. of Energy Tribal Renewable Energy Webinar Series for 2014

## U.S. Dept. of Energy Webinars

✚ JANUARY 6: Success Stories & Tools for Water Use Reduction in Your Building Portfolio - Click [here](#) to register.

✚ JANUARY 8: On-Bill Financing - Click [here](#) to register.

✚ JANUARY 15: Design Conditions for the Hurricane Metocean Environment - Click [here](#) to register.

✚ JANUARY 22: Solar Program Overview - Click [here](#) to register.

✚ JANUARY 28: [Transitioning to NERC CIPv5: What Does it Mean for Electric Utilities](#) - Click [here](#) to register.

## 2015 UPCOMING EVENTS

[NAHB Int'l. Builders' Show](#)  
Jan. 20-22 Las Vegas, NV

[ASHRAE Winter Conference](#)  
Jan. 24-28 Chicago, IL



Like our Facebook page! Learn more about energy in Arizona, get daily posts on a variety of energy topics and use the Comment Section to tell us what you think or ask questions of our energy experts.

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The Arizona Republic now has limited access. As such, links may or may not work.

## ARIZONA-RELATED

### [Diversified Technologies, Inc. Installs PEF System at ASU for AzCATI](#)

[Marketwired, Jan 6, 2015] Bedford, MA – [Diversified Technologies, Inc.](#) (DTI), developer of PowerMod™ high voltage, high power pulse modulators, DC power supplies, and process control systems, has installed a [PEF \(pulsed electric field\) Laboratory System](#) at the Arizona Center for Algae Technology and Innovation (AzCATI) on Arizona State University's Polytechnic campus. According to Thomas A. Dempster, PhD, AzCATI Lab Manager, "the PEF System will facilitate process development and trials for companies and institutions involved with the growing algal biofuel industry." [AzCATI](#) serves as a national testbed for research, testing, and the commercialization of algae-based products such as biofuels, pharmaceuticals, nutraceuticals, and other algae biomass co-products. Funded in part by the U.S. Dept. of Energy, the Center's mission is to enable the development of innovative and sustainable technologies for the production of microalgae feedstocks for biofuels and bioproducts. DTI's PEF Laboratory System streamlines the extraction of oils from algal cells early in the bio-refining process and allows for production scalability. According to Michael Kempkes, VP of Marketing, "the low energy PEF process of [lysing algae cells](#) would account for \$0.03/l the price of algae-derived biofuel compared to \$0.45/l for conventional drying before solvent extraction."

### [E.ON Commissions Large Scale Wind Farm and 18 MW Solar PV Project in the US](#)

[SolarServer.com, Dec. 19] With the commissioning of two renewables projects E.ON (Dusseldorf, Germany) is strengthening its position in the U.S. market for green energy. Both the start of commercial operation of the onshore wind farm Grandview I in the Texas Panhandle and of the Fort Huachuca Solar Plant in Arizona occurred in a single week, the company emphasizes. Grandview I is a 211 megawatt wind farm located 26 miles east of Amarillo. The 18 MW Fort Huachuca solar photovoltaic (PV) plant in southern Arizona is the largest solar project built on a U.S. Department of Defense military installation. Owner Tucson Electric Power will supply solar power to Fort Huachuca under a long-term contract. Built at the U.S. Army Fort Huachuca in partnership with Tucson Electric Power (TEP) and the U.S. Army Energy Initiatives Task Force (EITF), E.ON provided construction management and supply chain services for the project.

[Getting to ZERO Nat'l. Forum](#)  
Feb. 1-3 Washington, DC

[NASEO Energy Policy Outlook Conference 2015](#)  
Feb. 3-6 Washington, DC

[Solar Power Generation USA](#)  
Feb. 4-5 San Diego, CA

[Energy, Utility & Environment Conference \(EUEC\) 2015](#)  
Feb. 16-18 San Diego, CA

[Sustainability Solutions Festival](#)  
Feb. 16-21

[GreenBiz 2015](#)  
Feb. 17-19 Phoenix, AZ

[GreenBiz Forum 2015](#)  
Feb. 17-19 Phoenix, AZ

[2015 Sustainability Solution Festival](#)  
Feb. 17-22 Phoenix, AZ

[Natural Gas Vehicles + Infrastructure](#)  
Mar. 10-11 Phoenix, AZ

[GLOBALCON Conference & Expo](#)  
Mar. 17-18 Philadelphia, PA

[Solar Summit 2015](#)  
Apr. 14-15 Phoenix, AZ

[Utility Solar Conference](#)  
Apr. 27-29 San Diego, CA

[CxENERGY 2015 Conference & Expo](#)  
Apr. 27-30 Las Vegas, NV

[Alternative Clean Transportation \(ACT\) Expo](#)  
May 4-7 Dallas, TX

[Solar Power Generation Mexico](#)  
May 19-20  
World Trade Center, Mexico

[Energy Efficiency Finance Forum](#)  
May 31-Jun. 2 San Francisco, CA

[West Coast Energy Management Congress \(EMC\)](#)  
Jun. 3-4 Long Beach, CA

[ASHRAE Annual Conference](#)  
Jun. 27-Jul. 1 Atlanta, GA

### [Gila Bend Solar Power Plant Generates Output](#)

*Black & Veatch's EPC Expertise Moves APS' AZ Sun Program Closer to Its Renewable Energy Goals*

[Globe Newswire, Dec. 29] Park, KN – Gila Bend Solar Power Plant, an Arizona Public Service Co. (APS) facility, is now in operation. Black & Veatch provided engineering, procurement and construction (EPC) for the plant. Construction was performed by Overland Contracting Inc. (OCI), a wholly owned subsidiary of Black & Veatch. The Gila Bend Plant is the seventh in a series of projects designed to meet renewable energy goals set by APS' AZ Sun program. The 32-megawatt facility harnesses Arizona's vast solar resources to meet the energy needs of 8,000 homes and businesses in the area.

### [Have Solar Panels? Here Are 5 Things That Could Affect Your Finances](#)

[Arizona Republic, Jan. 4] Arizonans who support solar power, especially those who already have solar technology for their homes, face five key issues this year that could affect their finances:

- Thousands of homeowners, churches and schools who lease rooftop solar will see new tax bills this year unless state lawmakers take action to stop the fees. Arizonans who own solar panels don't pay property taxes on them, but the Arizona Department of Revenue has decided that the exemption does not apply to solar panels that are leased. The department sent valuation notices to companies, such as Sunrun Inc. and SolarCity Corp., that own solar systems and lease them to homeowners and commercial properties. The companies have clauses in their contracts that would pass the tax bills on to their leasing customers. The bills could be about \$150 a year for homeowners and several thousand dollars a year for churches, schools and other large properties. The first payments are due in October.

### [SRP Hearings Set On Rate Hike, Solar Changes](#)

[Arizona Republic, Jan. 2] Salt River Project customers have opportunities Monday and Thursday night to comment on the utility's proposed rate hike and proposed rate structure for solar customers. SRP in early December proposed a rate hike that will average 3.9 percent for residential customers. The average SRP residential customer uses 1,110 kilowatt-hours per month and pays a bill of \$128.25. The proposal would increase that an estimated \$4.61, to \$132.86. Customers on the time-of-use rate plan, who average 1,569 kilowatt-hours of electricity a month, would see an increase of about \$8.23 a month. But the proposal could have a more profound financial impact on customers who have solar panels on their homes. Customers who had contracted to buy or lease solar before Dec. 8 will keep their same rates for 10 years, then be subject to new demand charges and other changes that would add about \$50 a month to their bills. Customers who contracted for solar after Dec. 8 would be subject to the new rate structure immediately.

### [Solar Wind Energy Tower, Inc. Moves Tower Projects Forward in Mexico and Arizona](#)

[Yahoo Finance, Dec. 17] Annapolis, MD – Solar Wind Energy Tower, Inc. (SWET) (the "Company"), the inventor of large Solar Wind Downdraft Tower structures capable of producing abundant, inexpensive electricity, today announced an update on its Tower Projects in San Luis, Arizona and in San Luis Rio Colorado, Sonora, Mexico including the extension of Agreements for both Tower sites. As announced on October 2, 2014 the Company entered into a "Letter of Understanding" to purchase a 1,250 acre site from a private land owner in San Luis Rio Colorado, Sonora, just across the border from its first tower site in San Luis, Arizona. The Company's executed "Letter of Understanding" with the private land owner calls for definitive documents covering specific purchase terms and is subject to the following two conditions: The First Condition: calls for the provision of all of the necessary entitlements and a Water Supply Agreement to support the operation of the Tower. The Second Condition: calls for assistance in securing the necessary Power Purchase Agreements (PPA's) in support of the financing for the Tower Project. Over the past few months, the Company has worked very closely with city officials from San Luis Rio Colorado, Sonora Mexico who have committed to provide all of the necessary entitlements and water supply to operate the Tower in Mexico, and are assisting the Company in securing the necessary Power Purchase Agreements.

## **ALTERNATIVE ENERGY & EFFICIENCY**

### [First Wind Secures Approval for Energy Sales Agreements with Idaho Power](#)

[Energy Business Review, Jan. 6] First Wind, the Renewable energy company, has secured approval from the Idaho Public Utilities Commission for the energy sale agreements with five proposed First Wind solar projects and the Idaho Power Company. Located across southern Idaho, US, the projects will provide energy and economic diversity to Ada, Elmore, Owyhee and

#### [RES Las Vegas](#)

Mar. 9-12 Las Vegas, NV

#### [ACEEE Summer Study on Energy Efficiency in Industry](#)

Aug. 4-6 Buffalo, NY

#### [Solar Power Int'l. 2015](#)

Sep. 14-17 Anaheim, CA

#### [ACEEE National Conference on Energy Efficiency as a Resource](#)

Sep. 20-22 Little Rock, AR

#### [World Energy Engineering Congress \(WEEC\)](#)

Sep. 30-Oct. 2 2015

Orlando, FL

#### [ASU Sustainability Series Events](#)

#### [Green Building Lecture Series](#)

Scottsdale, AZ

Power counties. First Wind CEO Paul Gaynor said: "These five projects will deliver clean, renewable solar energy to homes and businesses in Idaho at a cost-competitive price. "The new long-term contracts with Idaho Power Company will enable us to move forward quickly and create a source of major economic activity for Idaho through good construction jobs and significant local tax revenues." Additionally, the projects will generate approximately 250,000MW hours annually, which is enough to power nearly 30,000 homes. Each of the projects is scheduled to be completed by the end of 2016 and will jointly generate approximately \$10m in direct property taxes over 20 years.

#### ["Greening" Homes Easier with Lower Rates for Solar Installation, Energy Efficiency Projects](#)

[Sustainable Cities Network, Dec. 30] Oakland, CA – [CaliforniaFIRST](#), a Property Assessed Clean Energy financing program for residential and commercial properties, announced new features and financial terms designed to help property owners make energy efficiency, renewable energy and water conservation upgrades. CaliforniaFIRST now has lower interest rates as well as an updated program that includes a 25-year payback term for solar with monitoring. The CaliforniaFIRST program has been incorporated by nearly 200 cities and counties across California. CaliforniaFIRST makes energy and water efficiency projects more affordable and accessible for California homeowners by providing project financing that is then paid back as a line item on their tax assessments. The program allows homeowners to choose a participating contractor and install an array of custom-tailored clean energy and water efficiency projects. The CaliforniaFIRST team recently announced new lower interest rates: the 10-year rate dropped from 7.9 percent to 7.59 percent, the 15-year rate dropped from 8.5 percent to 7.99 percent, the 20-year rate dropped from 8.75 percent to 8.29 percent and the new 25-year term is offered at 8.39 percent. In an effort to help customers to adopt solar affordably, CaliforniaFIRST is offering an extended repayment program. This simplified program includes a 25-year repayment term and is now available for the direct purchase of solar PV installations that include an eligible monitoring system.

#### [Office Buildings and Schools To Save \\$15B with New DOE Standards](#)

[Energy Manager Today, Jan. 4] On the very last day of 2014, the Department of Energy (DOE) released new energy efficiency standards for linear fluorescent lights that will lower the electric bills of virtually every office building, school, and hospital across the country by \$15 billion through 2030. The new DOE standards are a big deal as there are billions of these tubular lights in place and they are often on for 12 or more hours a day. These lighting standards culminate a very successful energy-saving year by DOE, which finalized minimum energy efficiency standards for 10 product categories ranging from commercial refrigeration equipment to furnace fans to external power supplies (the ubiquitous little black box chargers needed to power our laptop computers and cell phones). According to DOE, these 10 standards will eliminate 435 million metric tons of carbon dioxide emissions from power plants, the largest source of climate change pollution in the United States and save America's businesses and families \$78 billion in electricity bills through 2030. And this lighting standard for what is known in the industry as "General Service Fluorescent Lamps" was worth waiting for as it represents the greatest energy (and financial) savings of all those set in 2014.

#### [Smart Policy Contributing to National Solar Growth](#)

[Fierce Energy, Dec. 24] Solar energy continues to make significant inroads across the country, as evidenced by the joint findings of GTM Research and the Solar Energy Industries Association (SEIA), with falling prices and rapid industry growth being attributed to smart, effective public policies that allow consumers to choose renewable energy. A new growth industry is emerging in states like Utah and Georgia. In Utah, for example, residential solar installations in the third quarter alone were equal to the amount installed all of last year, according to the research. Further, added solar capacity in quarter three was more than six times the capacity installed over the same quarter in 2013.

### **ENERGY/GENERAL**

#### [Oil Extends Drop Below \\$50 as U.S. Stockpiles Seen Rising](#)

[Bloomberg, Jan. 6] Oil extended losses below \$50 a barrel amid speculation that U.S. inventories will expand, deepening a global supply glut that's driven prices to a five-year low. Futures declined for a fourth day. Stockpiles in the world's biggest oil-consuming country probably rose by 700,000 barrels last week, a Bloomberg News survey showed before a government report tomorrow. Oil slumped almost 50 percent in 2014, the most since the 2008 financial crisis, after the Organization of Petroleum Exporting Countries resisted calls to cut output as it competes with U.S. producers. The market faces "more problems" this year, according to Morgan Stanley, with surging output in Russia and [Iraq](#) contributing to a surplus that Qatar estimates at 2 million barrels a day.

## INDUSTRIES AND TECHNOLOGIES

### Raise Your Home's IQ: Smart Gadgets Take Center Stage at CES

[Associated Press, Jan. 5] LAS VEGAS — Imagine a world in which your garage door opens automatically as you pull into the driveway. The living room lights and heater turn on — perhaps the oven starts warming up, too. In the so-called "smart home," cars, appliances and other devices all have sensors and Internet connectivity to think and act for themselves, and make your life easier. We're not there just yet, but we're getting closer. The smart-home concept is known in tech circles as the Internet of Things. Current iterations primarily include our ability to control gadgets such as lights and security alarms or view data remotely through a smartphone app. At the International CES gadget show in Las Vegas this week, manufacturers will promote more devices and functionality. Some gadgets will be able to talk directly with one another, not just to an app. The four-day show opens to the public Tuesday. That garage door? Mercedes-Benz would like people to imagine their luxury car of the future pulling in all by itself, without a driver behind the wheel, to bring its passengers home. The carmaker unveiled the sleek concept car that it is calling F 015 Monday night when it turned a stage inside The Cosmopolitan on the Strip in Las Vegas into a scene usually reserved for annual car shows, attracting a swell of people on stage afterward wanting a closer look. The car's futuristic look belies some historic inspiration in its design. Zetsche said the wheels were pushed to the outer edges much like a horse carriage, giving ample room inside for seating rather than wheel wells — in this case four modern swivel chairs that can face each other. And much like those horse carriages, the passengers inside the car of the future can chat, read a newspaper, or even take a nap while their car would ferry them home. "Mankind has been dreaming of autonomous cars since the 1950s," said Dieter Zetsche, head of Mercedes-Benz. He said his company has been working to make it a reality, albeit still a concept and not in production yet, since the 1990s. "It's basically a revolution," he said of the car. The Internet of Things could mean big business for gadget makers, too. The Consumer Electronics Association projects sales of smart energy and security systems alone will total \$574 million this year, a 23 percent increase from 2014. Although that pales by comparison to the \$18 billion spent on TVs and displays, growth has been swift. In terms of people smartening up their homes in earnest, though, it will probably be another two years before devices are cheap and widespread enough for the typical consumer, says Eduardo Pinheiro, CEO of Muzzley, which makes a hub that allows devices to talk to each other. For now, the smart home is more about possibilities than practice. Many companies exhibiting at CES are laying the foundation for what a smart-home system will eventually do, hoping to entice consumers to start thinking about upgrading to smart gadgets. It's not always an easy sell.

### Toyota Opens the Door and Invites the Industry to the Hydrogen Future

*More than 5,600 fuel cell and related patents available for royalty-free use*

*Patents include industry leading fuel cell technology used in new Toyota Mirai*

[Business Wire, Jan. 5] LAS VEGAS — Toyota is opening the door to the hydrogen future, making available thousands of hydrogen fuel cell patents royalty free. Announced today at the 2015 Consumer Electronics Show, this Toyota initiative will spur development and introduction of innovative fuel cell technologies around the world. Toyota will invite royalty-free use of approximately 5,680 fuel cell related patents held globally, including critical technologies developed for the new Toyota Mirai. The list includes approximately 1,970 patents related to fuel cell stacks, 290 associated with high-pressure hydrogen tanks, 3,350 related to fuel cell system software control and 70 patents related to hydrogen production and supply. "At Toyota, we believe that when good ideas are shared, great things can happen," said Bob Carter, Senior Vice President of Automotive Operations at Toyota Motor Sales, U.S.A. Inc. "The first generation hydrogen fuel cell vehicles, launched between 2015 and 2020, will be critical, requiring a concerted effort and unconventional collaboration between automakers, government regulators, academia and energy providers. By eliminating traditional corporate boundaries, we can speed the development of new technologies and move into the future of mobility more quickly, effectively and economically." Toyota has a long history of opening its intellectual properties through collaboration, and was instrumental in facilitating the widespread adoption of hybrid vehicles by licensing related patents. Today's announcement represents the first time that Toyota has made its patents available free of charge and reflects the company's aggressive support for developing a hydrogen-based society. This Toyota initiative builds on previous commitments, including substantial financial support for the development of a hydrogen fueling infrastructure in California and the northeastern United States. In May 2014, Toyota announced a \$7.3 million loan to FirstElement Fuels to support the operations and maintenance of 19 hydrogen fueling stations across California. In November 2014, Toyota announced a collaboration with Air Liquide to develop and supply a phased network of 12 state-of-the-art hydrogen stations targeted for New York, New Jersey, Massachusetts, Connecticut and Rhode Island.

## LEGISLATION AND REGULATION

### [Clearer Regulations Aim To Lift Administrative Burden from Industry, Regulators](#)

[Fierce Energy, Dec. 24] The Department of the Interior (DOI) has released a draft proposed federal regulation by the Office of Natural Resources Revenue (ONRR) governing the valuation of federal oil and gas, and federal and American Indian coal resources, as well as expanded guidance on the production of coal on public lands issued by the Bureau of Land Management (BLM). Both initiatives seek to provide greater clarity and certainty for the energy industry. The current oil, gas and coal valuation regulations, originally put in place for natural gas and coal in the late 1980s, have not kept pace with the significant market changes that have occurred in the domestic natural gas and coal markets. The existing federal oil valuation regulations are a decade old. The proposed draft regulation will update the regulations to help keep pace with modern technology and practices.

### [E.P.A. Wrestles with Role of Nuclear Plants in Carbon Emission Rules](#)

[New York Times, Dec. 25] WASHINGTON — Trying to write a complicated formula to cut carbon emissions, the Environmental Protection Agency thinks it has found a magic number: 5.8. The agency is trying to complete a rule governing carbon emissions from power plants, and among the most complicated and contentious issues is how to treat existing nuclear power plants. Many of them are threatened with shutdowns because cheap natural gas has made their reactors uncompetitive. The agency's proposal gave an odd mathematical formula for evaluating nuclear plants' contribution to carbon emissions. It said that 5.8 percent of existing nuclear capacity was at risk of being shut for financial reasons, and thus for states with nuclear reactors, keeping them running would earn a credit of 5.8 percent toward that state's carbon reduction goal. Since receiving tens of thousands of comments on the proposal, the agency is now reviewing the plan. It must evaluate all comments before it sets a final rule, which it hopes to do by June. That rule, however, is likely to be challenged in court. Under the proposed formula, if a state closed a 1,000-megawatt nuclear plant and replaced 5.8 percent of it, or 58 megawatts, with carbon-free electricity, it would be deemed to be "carbon neutral." The state would reach the benchmark even if the other 942 megawatts of power generated came from a carbon-emitting source like natural gas combustion. Conversely, a state that kept all its nuclear plants open until 2030 could claim a credit for 5.8 percent toward its carbon reduction goal. The 5.8 percent figure for nuclear power plants puzzled even opponents of such power sources.

### [Feds Want 'Zero-Energy' Building Standards](#)

[The Hill, Jan. 5] The Department of Energy (DOE) wants regulators and the private sector to agree on standards for zero-energy buildings. In a [notice](#) due to be published Tuesday in the *Federal Register*, DOE asks the public for input on a variety of questions about standards. Specifically, DOE wants to know how the public feels about how to define zero-energy buildings, how to designate buildings that meet various standards and how to set guidelines that could help governments, private companies and others in constructing and recognizing the buildings. The agency did not say that it plans to set its own standards for zero-energy buildings.

### [Gasoline-Tax Increase Finds Little Support](#)

[New York Times, Jan. 2] When gasoline topped \$4 a gallon, opponents of an increase in the gas tax argued that prices were already too high. Now the average price of regular gas has dropped under \$2.50 a gallon, but in the antitax environment that pervades Washington there is still scant support for increasing the gas tax to finance upkeep of the nation's roadways and public transit systems. The no-win dynamic is frustrating to advocates who hoped falling gas prices might reinvigorate the idea of raising the gas tax, which they view as one of the simplest, fairest and most efficient ways to pay for transportation repairs and improvements.

### [Governor Proposes Limits on Carbon Pollution from State's Major Emitters](#)

[Sustainable Cities Network, Dec. 28] Olympia, WA —Governor Jay Inslee unveiled a historic package of climate and clean energy initiatives that includes, for the first time, a firm and enforceable limit on carbon pollution from the state's major emitters. The pollution fees generated would fund public transit, transportation infrastructure, basic education, and invest in Washington's disadvantaged communities. The proposal also includes a new Clean Energy Fund to deploy renewable energy and energy efficiency solutions and a suite of clean transportation measures to put Washington on course to comply with state law that requires a reduction of carbon pollution to 1990 levels by 2020 and 25 percent below 1990 levels by 2035. "By putting firm limits on carbon pollution, Governor Inslee's proposal would simultaneously protect public health and future generations and spur clean energy investments and jobs across the state," said

Noah Long, Senior Attorney for the Natural Resources Defense Council. "The legislature should move this important plan forward."

#### [Most States On Track To Meet Renewable Energy Standards](#)

[Associated Press, Jan. 2] Albuquerque, N.M. — More than five dozen giant wind turbines erected on a remote mesa in western New Mexico began churning out power for the state's largest electric provider on New Year's Day. Tapping into the multimillion-dollar Red Mesa Wind Energy Center marks the latest effort by utility PNM to add more renewable energy resources to its portfolio. From New Mexico and Texas to Montana and New York, PNM and other investor-owned utilities are facing higher renewable energy standards starting this year as numerous states and the federal government push for a reduction in the use of fossil fuels for generating electricity. Nearly 30 states, the District of Columbia and two U.S. territories have adopted renewable energy portfolio standards during the past decade, while several others have established goals. New Mexico's standard increased from 10 percent to 15 percent with the start of the new year, while New York's new requirement remains one of the highest in the nation at 29 percent, according to a federal database that tracks state incentives for renewable energy and energy efficiency. Most states are on track to meet their standards, energy experts said.

#### [New Energy Efficiency Standards To Help Americans Save Money by Saving Energy, Cut Carbon Pollution](#)

[Energy.gov website, Dec. 31] WASHINGTON — In support of the President's Climate Action Plan, the Energy Department announced two new energy efficiency standards today. The new standards for general service fluorescent lamps (GSFLs) and automatic commercial ice makers (ACIMs) are the ninth and tenth standards to be finalized in 2014. Altogether, the ten standards finalized this year will help reduce carbon dioxide emissions by over 435 million metric tons and save American families and businesses \$78 billion in electricity bills through 2030. "As part of President Obama's Climate Action Plan, the Energy Department set an ambitious goal of finalizing 10 energy efficiency standards this year, and with the new efficiency standards for general service fluorescent lamps and automatic commercial ice makers, we have reached that goal," said Energy Secretary Ernest Moniz. "The Energy Department is committed to building on this progress, and will continue to develop standards that move the U.S. closer to a low carbon future." Typically used for indoor lighting in homes, commercial establishments such as restaurants, and in industrial factories, GSFLs are used on average for approximately 630 hours per household, 4,000 hours per commercial establishment, and 4,500 hours per establishment in the industrial sector each year. The new standard for GSFLs will help reduce harmful carbon dioxide pollution by 90 million metric tons — equivalent to the carbon pollution from the annual electricity use of more than 12 million homes — and save Americans more than \$15 billion in electricity bills through 2030.

#### [U.S. Solar Tariff Review Hints at Halved Rate for Chinese Cells](#)

[Bloomberg, Jan. 5] U.S. tariffs on Chinese solar cells may be halved after a [Department of Commerce](#) review of duties, boosting margins of manufacturers and installers. The review of 2012 import tariffs recommended that the countervailing and anti-dumping duties levied on most Chinese solar manufacturers be reduced from a combined 31 percent to around 18 percent, the department's [International Trade Administration](#) said in its preliminary results released Jan. 2. Manufacturers of solar panels, including JinkoSolar Holdings Co. and [Canadian Solar Inc. \(CSIQ\)](#), and customers, such as installers [SolarCity Inc. \(SCTY\)](#) and [Vivint Solar Inc. \(VSLR\)](#), are likely to see "a substantial potential improvement to U.S. margins," Philip Shen, analyst at Roth Capital Partners LLC in [Newport Beach](#), California said today in a research note. The U.S. and China are caught in a dispute over role of government in aiding renewable energy companies that originated with a case brought by [SolarWorld AG \(SWVK\)](#), a German solar manufacturer with a factory in Oregon. SolarWorld asked the Commerce Department in 2012 to apply tariffs to solar cells imported from China. After the tariffs kicked in, imports of panels with cells made in Taiwan boomed, and SolarWorld said a year ago that Chinese makers had shifted production to skirt the duties.

### **WESTERN POWER**

#### [Calif. Governor Vows To Boost Renewable Energy, Cut Petroleum Use](#)

[Reuters, Jan. 5] California Governor Jerry Brown on Monday laid out an ambitious plan for 50 percent of the state's electricity to be generated by renewable resources over the next 15 years and to cut petroleum usage by drivers. Brown, who was sworn in for an unprecedented fourth term, said he would also seek to double the energy efficiency of existing buildings and make heating fuels cleaner. "I envision a wide range of initiatives: more distributed power, expanded

rooftop solar, micro-grids, an energy imbalance market, battery storage, the full integration of information technology and electrical distribution and millions of electric and low-carbon vehicles," Brown said in his speech in Sacramento. The state has pushed to implement far-reaching climate change policies, including its landmark AB 32 law aimed at reducing carbon pollution back to 1990 levels by 2020. Brown said California was on track to meet its goal of generating one-third of the state's electricity through renewable energy within the next five years. The governor's new initiative could be a boon for green energy companies, such as manufacturers of electric vehicles and those looking to build utility-scale solar projects or upgrade the state's aging electric grid.

#### [California To Begin Work On Nation's First Bullet Train](#)

[Associated Press, Jan. 6] Fresno, CA – California's high-speed rail project reaches a milestone Tuesday as officials mark the start of work on the nation's first bullet train, which is designed to whisk travelers at 200 mph between Los Angeles and San Francisco in less than three hours. The ceremony in Fresno comes amid challenges from Central Valley farmers and communities in the train's path who have sued to block it and from Republican members of Congress who vow to cut funding for the \$68 billion project. Opponents also say the state can't deliver the sleek project as it was first promised. Dan Richard, chairman of the California High-Speed Rail Authority, acknowledges the authority has been slow to buy up most of the land needed for laying track, but he is confident the system will be built, making California a model for high-speed rail across the country. "The voters are going to get exactly what they asked for," Richard said. "We have never ever stepped away from that vision, not one inch." Californians in 2008 approved a nearly \$10 billion bond for the train, and in 2012 the Obama administration dedicated \$3.3 billion in stimulus funds. The state Legislature last year dedicated to the project a portion of the greenhouse gas fees collected under the state's cap-and-trade program to reduce greenhouse gases.

#### [Heavyweight Response to Local Fracking Bans](#)

[New York Times, Jan. 3] Longmont, CO — This northern Colorado city vaulted onto the front lines of the battle over oil and gas drilling two years ago, when residents voted to ban hydraulic fracturing from their grassy open spaces and a snow-fed reservoir where anglers catch smallmouth bass. But these days, Longmont has become a cautionary tale of what can happen when cities decide to confront the oil and gas industry. In an aggressive response to a wave of citizen-led drilling bans, state officials, energy companies and industry groups are taking Longmont and other municipalities to court, forcing local governments into what critics say are expensive, long-shot efforts to defend the measures. While the details vary — some municipalities have voted for outright bans, and others for multiyear suspensions of fracking — energy companies in city after city argue that they have a right to extract underground minerals, and that the drilling bans amount to voter-approved theft. They also say state agencies, not individual communities, are the ones with the power to set oil and gas rules.

#### [New PGE Plant Will Help Balance Renewables and Meet Peak Demand for Customers](#)

*Port Westward Unit 2 uses latest technology for maximum flexibility*

[Business Wire, Jan. 2] Portland, OR – Portland General Electric Company (NYSE: POR) today announced that its Port Westward Unit 2 plant, a 220-megawatt natural gas-fired power plant located near Clatskanie, Ore., went into service on Dec. 30, 2014 and is now available to generate electricity for PGE customers. The new plant is a highly efficient facility designed for maximum flexibility to help meet real-time fluctuations in customer demand and integrate renewable resources "With the growing amount of variable renewable power coming online, this type of flexible resource is essential in helping us continue to provide reliable service to our customers in an increasingly complex environment," said Jim Piro, PGE's president and CEO. The plant is comprised of 12 reciprocating engines supplied by Wärtsilä North America that are designed to be highly efficient, flexible and responsive. The 25,000-horsepower 50SG engines are the first of their size in the country to run entirely on natural gas. "Port Westward Unit 2's advanced technology and unique configuration allows PGE to ramp up the plant to full load in less than 10 minutes," said Rick Tetzloff, PGE's project manager for Port Westward Unit 2. "This flexibility allows us to adjust quickly when renewable energy — like wind and solar — rise and fall with natural variability. And it also means that on peak demand days, our customers benefit from increased reliability." Port Westward Unit 2 serves as an important component of the company's diversified portfolio of energy resources, complementing the new 267-megawatt Tucannon River Wind Farm brought online on Dec. 15, 2014.

#### [Regulators Weigh Proposal To Close Part of New Mexico Plant](#)

[Associated Press, Jan. 5] SANTA FE, N.M. — New Mexico regulators began hearing testimony Monday on a plan that calls for shutting down part of an aging coal-fired power plant that provides electricity to more than 2 million people in the Southwest, including customers of Tucson Electric Power Co. The EPA-backed plan would curb haze-causing pollution at the San Juan

Generating Station, but some environmentalists argue it doesn't do enough to wean the state's largest utility off fossil fuels. The hearing before the Public Regulation Commission began Monday with dozens of people braving frigid temperatures to protest. They talked about asthma, cancer and other health concerns throughout the region, which also is home to other coal-fired plants. San Juan is owned by Public Service Co. of New Mexico and several other utilities, including TEP, and is operated by PNM. PNM's plan would replace the power lost from a partial shutdown of San Juan with a mix of coal-fired power from one of the plant's other units, electricity generated by the Palo Verde nuclear plant about 45 miles west of Phoenix, a new natural gas-fired plant and more solar generating stations. The utility's regulatory filings estimate the cost over 20 years at more than \$6.8 billion. PNM and others say the plan represents the most cost-effective alternative for ratepayers. The U.S. Environmental Protection Agency, the state attorney general's office, the New Mexico Renewable Industries Association and others have signed off on PNM's proposal. But it still requires approval from the Public Regulation Commission.

## ARIZONA STATE INCENTIVES/POLICIES

### ARIZONA COMMERCE AUTHORITY (ACA)

- **INCENTIVES**

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- [Renewable Energy Tax Incentive](#)
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- [Sales Tax Exemption for Machinery and Equipment](#)
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- [Work Opportunity](#)
- [Commercial/Industrial Solar](#)
- [SBIR/STTR](#)
- [Private Activity Bonds](#)
- [QECB's](#)

- **(ACA) PROGRAMS**

- **DATABASE OF STATE INCENTIVES FOR RENEWABLES & EFFICIENCY (DSIRE)**

- [Arizona Incentives/Policies](#)
- [Federal Incentives/Policies](#)
- [Solar Policy News](#)

DSIRE provides summaries of current solar policy developments and an archive of past solar policy developments. Current solar news appears below the news archive, which is searchable by several criteria.

## GRANTS

The following solicitations are now available:  
(Click on title to view solicitation)

- [Accelerating Industry-Led Regional Partnerships for Talent Development \(EDAREGIONALTALENT2014\)](#) – Applications due January 9, 2015

- [Buildings Energy Efficiency Frontier & Innovation Technologies \(BENEFIT\) - 2015](#)  
Close Date: 01/12/2015 Funding Number: DE-FOA-0001166
- [Landscape Design for Sustainable Bioenergy Systems Department of Energy](#)  
Close Date: 01/12/2015
- [WaterSMART: Water and Energy Efficiency Grants for FY 2015](#) Funding Opportunity #:R15AS00002 Close Date: 01/14/2015
- [Solid-State Lighting Advanced Technology Research and Development 2015](#)  
Close Date: 01/15/2015
- [Advancing Solutions to Improve the Energy Efficiency of U.S. Commercial Buildings](#)  
Close Date: 01/20/2015
- [Micro-scale Optimized Solar-cell Arrays with Integrated Concentration \(MOSIAC\) \(DE-FOA-0001256\)](#) – Concept Paper due January 22, 2015
- [Wood Innovations Programs \(USDA-FS-WERC-2015\)](#) – Application Due Date: January 23, 2015
- [Wood Innovations](#) Close Date: 1/23/2015
- [Buildings University Innovators & Leaders Development \(BUILD\) – 2015](#) Funding Opportunity #:DE-FOA-0001167 – Concept Papers due December 19, 2014  
Close Date: 1/28/2015
- [Notice of Intent: State Energy Program 2015 Competitive Awards](#)
- [Environmental Workforce Development And Job Training \(EWDJT\) Grants \(EPA-OSWER-OBLR-15-01\)](#) – Application Due Date: February 3, 2015
- [Building America Industry Partnerships for High Performance Housing Innovation](#)  
Funding Opportunity #:DE-FOA-0001117 Close Date: 02/04/2015
- [Choice Neighborhoods Implementation Grant Program \(FR-5800-N-11\)](#) – Application Due Date: February 9, 2015
- [Buildings University Innovators and Leaders Development \(BUILD\) - 2015](#) – Close Date 02/11/2014
- [Powering Agriculture: An Energy Grand Challenge for Development \(AID-SOL-OOA-00005\)](#) – Applications accepted between December 8, 2014 through February 12, 2015
- [Infrastructure Management and Extreme Events \(PD-15-1638\)](#) – Application Due Date: February 17, 2015
- [Student Program for Environmental Excellence in Design \(SPEED\) \(EPA-OAR-OTAP-15-02\)](#) – Application Due Date: February 22, 2015
- [The Resilient Electricity Delivery Infrastructure \(REDI\) Initiative \(DE-FOA-0001219\)](#) – Application Due Date: March 4, 2015
- [Physics of Reliability: Evaluating Design Insights for Component Technologies in Solar 2 \(PREDICTS2\)](#) – Close Date: 3/12/2015
- [Sustainable and Holistic Integration of Energy Storage and Solar PV \(SHINES\)](#)  
Close Date: 3/19/15
- [Desalination and Water Purification Research and Development \(DWPR\) \(R15AS00019\)](#) – Application Due Date: April 27, 2015

- [Desalination and Water Purification Research and Development \(DWPR\) Pilot \(R15AS00021\)](#) – Application Due Date: April 27, 2015
- [American Apprenticeship Initiative \(FOA-ETA-15-02\)](#) – Application Due Date: April 30, 2015
- [Advanced Frontiers in Renewable Hydrogen Fuel Production via Solar Water Splitting Technologies](#) – Letter of Intent due October 7, 2015
- [Land and Water Conservation Fund State and Local Assistance Program](#) – Application Due Date: 08/11/2015
- [Landscape Design for Sustainable Bioenergy Systems \(DE-FOA-0001179\)](#) – Concept Paper due November 21, 2015
- [Repowering Assistance Program](#) - Ongoing
- [Rural Business Enterprise Grants](#) - Ongoing
- [Rural Business Opportunity Grants](#) - Ongoing
- [Sustainable Agriculture Research and Education Grants](#) - Ongoing
- [Renewable Energy RFP's - Solicitations for Renewable Energy Generation, Renewable Energy Certificates, and Green Power](#) – Various Deadlines
- [U.S. Dept. of Agriculture - Rural Development Grant Assistance](#)
- [Green Refinance Plus](#) – Ongoing
- [National Science Foundation Funding Opportunities](#)